

# Setting the Stage: Water Quality Planning and Restoration Goals

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Tetra Tech



## The Watershed Approach

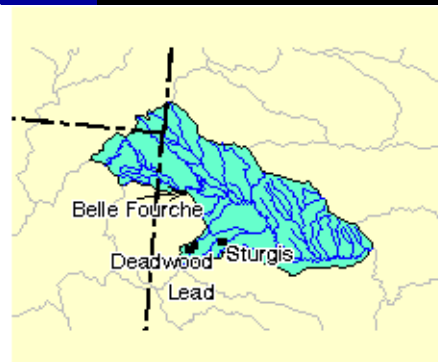
- **NPS Program Priority**
- **Focus on the Watershed Approach**
  1. Diverse, well integrated partnerships
  2. A specific geographic focus
  3. Actions based on sound science and technology
  4. Coordinated priority setting and integrated solutions

# Scale of Planning

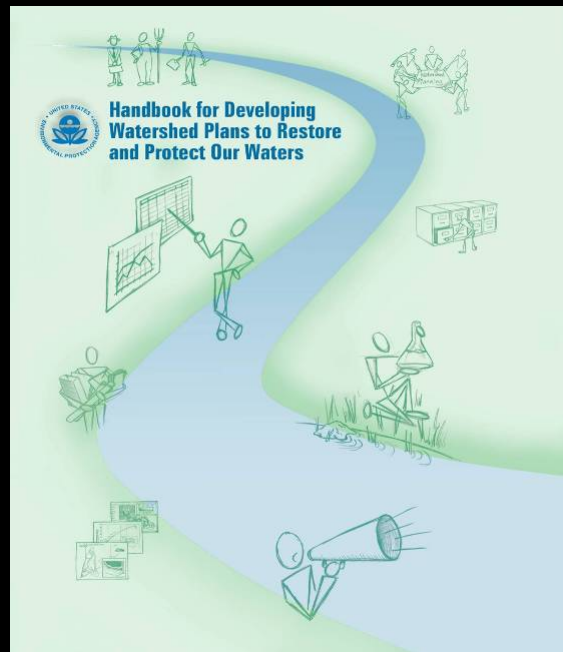
- Tend to focus at the 10 or 12-digit HUC level  
**Key:** Ensure that the area is small enough to manage, but large enough to efficiently address water quality impairments and concerns across a broad geographic area



## Lower Belle Fourche Watershed 10120202



# Watershed Planning Handbook



[http://www.epa.gov/owow/nps/watershed\\_handbook/](http://www.epa.gov/owow/nps/watershed_handbook/)

## Nine elements of watershed plans

- a) Identification of causes and sources at the sub-category level that need to be controlled to achieve WQ goals
- b) Description of the NPS management measures needed for implementation to achieve *water quality-based goals* and ID critical areas
- c) An estimate of *water quality-based goals* expected to be achieved (quantitative or narrative)
- d) Estimate of needed technical & financial resources

## Nine elements of watershed plans

- e) Information/education component
- f) Schedule (who does what, when?)
- g) Description of measurable milestones for implementation
- h) Criteria to determine whether *water quality-based goals* are being achieved over time (adaptive management component)
- i) Monitoring component to evaluate effectiveness of implementation efforts

*Reference: FY 2007 Tribal 319 Guidelines*

<http://www.epa.gov/owow/nps/tribal/>

## What are your water quality goals?



## Where are you now? Where do you want to go?

- Defining your watershed goals
  - Meeting water quality criteria
  - Improving measurable water quality conditions or parameters
  - Enhancing/restoring fisheries
  - Stabilizing stream banks
  - Restoring ceremonial waters

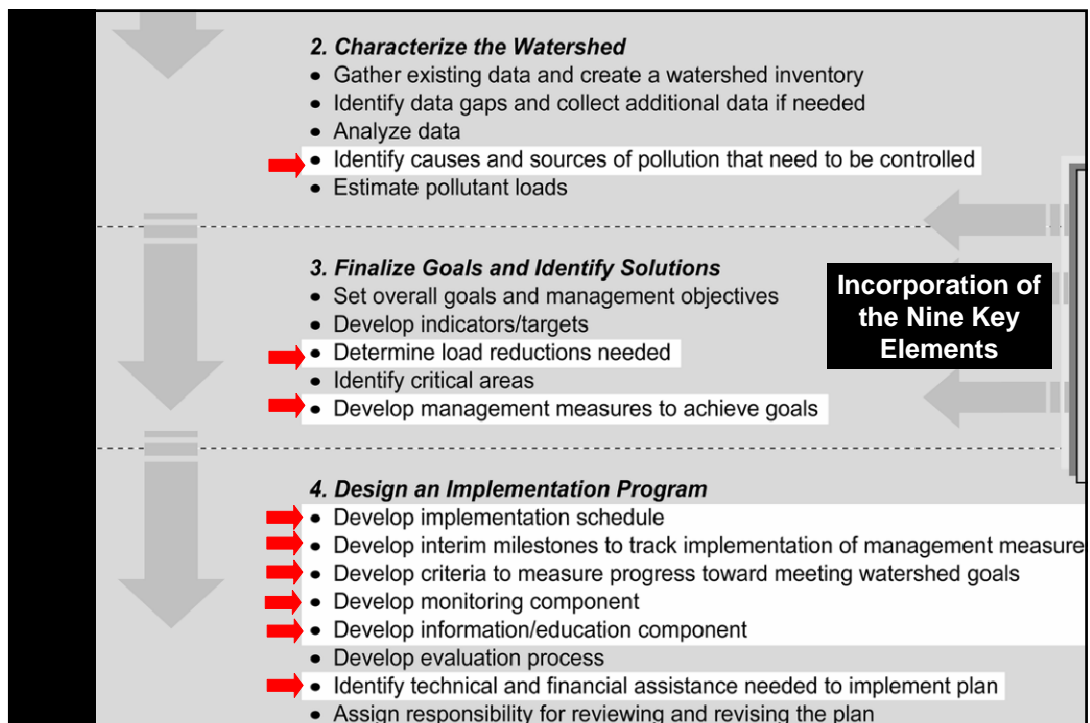
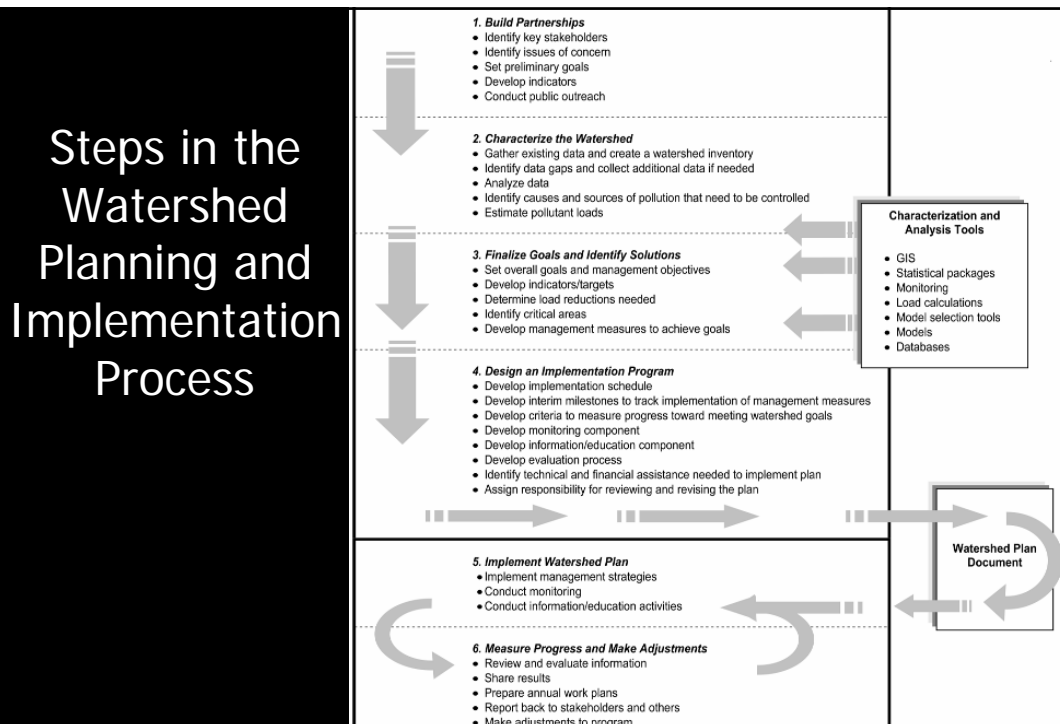
***How will you know when you get there??***



## Steps in the Watershed Planning Process

- Build partnerships
- Characterize the watershed
- Finalize goals, ID solutions
- Design an implementation program
- Implement the watershed plan
- Measure progress & adapt







# Targeting Best Management Practices (BMPs)

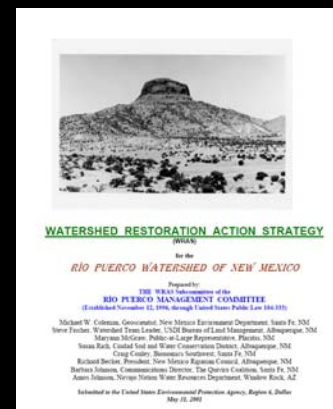
- Until you have quantitative knowledge of:
  - a) The nature and source of the WQ problem
  - b) Your water-quality based goals
  - c) The BMPs most effective at solving your impairments....

## YOU'RE NOT READY TO IMPLEMENT BMPs

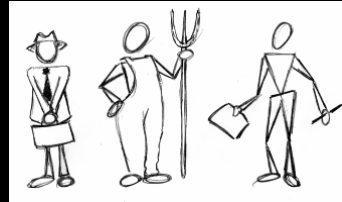
..... Unless you're lucky!

# Contents of a Watershed Plan

- Introduction
  - Plan area & description, partners, background
- Water quality information & analysis
  - WQ goals, monitoring/assessment results
  - Key pollutants / stressors, sources, current loads
- Proposed management measures
  - Load reductions needed, BMP types proposed
  - Reductions expected from BMPs, installation sites
- Implementation plan
  - Public info/education & outreach/involvement plan
  - BMP/\$\$/TA support sources, project schedule & costs
- Monitoring and adaptive management approach
  - Interim measurable milestones, load reduction criteria
  - Evaluation framework, monitoring plan & partners

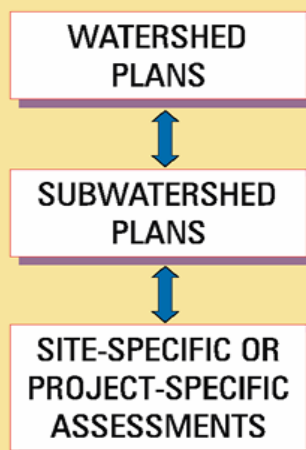


# 319 Work Plans



- Usually extracted from the watershed plan
  - Higher scores on competitive grant reviews . . .
- Can be designed to develop a watershed-based plan compatible with the 9 elements
  - Must ID watershed, include plan development schedule, estimate of funds needed to develop plan
- Watershed plans do not require approval from EPA, but EPA must certify that 9 elements are addressed
  - Tribes & states ID plans to be implemented, provide schedule, and estimate 319 funding needed

## Scale and Data Collection in Watershed Planning





## Don't Re-invent the Wheel to Develop a Watershed Plan

- Reference your Assessment Report & Mgmt Plan
- Watershed Restoration Action Strategies
- Reference other relevant documents to develop plan (e.g. NEPA documents, state/watershed group WBPs, WQMPs, etc.)
- Various EPA watershed tools
- Consult with your friendly EPA regional office staff – will “certify” that your WBP contains the 9 key elements

*Take Home Message: Talk to people and look for existing information!*

## Do I need my own watershed plan?

- No – you can piggyback off someone else's plan
  - If there is a plan for your larger watershed, you can develop an addendum or supplement for your lands
  - If there is no plan, you can partner with non-tribal entities to develop a joint plan



## One More Thing...

- Tribes are not required to do watershed plans
- HOWEVER, for competitive 319 grants, the Review Committee may give priority consideration to high quality workplans that develop and/or implement watershed plans



## The Bottom Line:

- WQ improvement goal *estimates* are critical for point & nonpoint sources
- Preliminary info & estimates can be modified & corrected over time
- Tribes can use water quality – based goals rather than strict quantitative analysis
  - Can be narrative & based on Best Professional Judgment if little or no data are available



